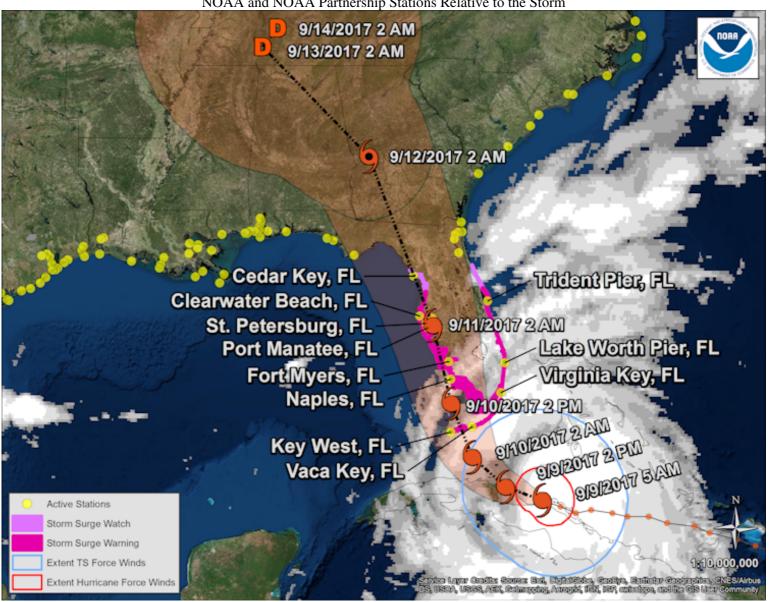


NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 09/09/2017 06:00 EDT, water levels along the coast of Florida, from Trident Pier down and around the west coast to Cedar Key including the Florida Keys are presently within 1 foot of normal tide levels.

Winds from Key West to Lake Worth Pier are beginning to increase and range from 10 to 25 knots with slightly higher gusts this morning. Barometric pressure is slowly falling across southern Florida.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: CRD

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

Hurricane Irma Advisory Number 41 NWS National Hurricane Center Miami FL 500 AM EDT Sat Sep 09 2017

...EYE OF IRMA CONTINUES MOVING OVER THE CAMAGUEY ARCHIPELAGO OF CUBA AS A CATEGORY 4 HURRICANE...

SUMMARY OF 500 AM EDT...INFORMATION

LOCATION...22.5N 78.8W
ABOUT 45 MI...70 KM E OF CAIBARIEN CUBA
ABOUT 245 MI...395 KM SSE OF MIAMI FLORIDA
MAXIMUM SUSTAINED WINDS...155 MPH
PRESENT MOVEMENT...WNW OR 285 DEGREES AT 12 MPH
MINIMUM CENTRAL PRESSURE...930 MB

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

The Hurricane Warning and the Storm Surge Warning are extended northward along the Florida West coast from Anclote River to Chassahowitzka.

The Hurricane Warning is extended northward along the Florida East coast to the Flagler/Volusia County Line.

A Tropical Storm Watch has been issued north of Fernandina Beach to Altamaha Sound, Georgia.

Additional Watches and Warnings may be required for portions of the coasts of Georgia and South Carolina, as well as portions of the Florida Gulf Coast later today.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Storm Surge Warning is in effect for...

- * Volusia/Brevard County Line southward around the Florida peninsula
- to Chassahowitzka
- * Florida Keys
- * Tampa Bay

A Storm Surge Watch is in effect for...

* North of the Volusia/Brevard County Line to the Flagler/Volusia

County line

* North of Chassahowitzka to Suwannee River

A Hurricane Warning is in effect for...

- * Flagler/Volusia County Line southward around the Florida peninsula to Chassahowitzka
- * Florida Keys
- * Lake Okeechobee
- * Florida Bay

A Hurricane Watch is in effect for...

- * North of the Flagler/Volusia County Line to Fernandina Beach
- * North and west of Chassahowitzka to Indian Pass

A Tropical Storm Watch is in effect for...

* North of Fernandina Beach to Altamaha Sound

A Storm Surge Warning means there is a danger of life-threatening inundation, from rising water moving inland from the coastline, during the next 36 hours in the indicated locations. For a

depiction of areas at risk, please see the National Weather Service Storm Surge Watch/Warning Graphic, available at hurricanes.gov. This is a life-threatening situation. Persons located within these areas should take all necessary actions to

protect life and property from rising water and the potential for other dangerous conditions. Promptly follow evacuation and other instructions from local officials.

A Storm Surge Watch means there is a possibility of life- threatening inundation, from rising water moving inland from the coastline, in the indicated locations during the next 48 hours. For a depiction of areas at risk, please see the National Weather Service Storm Surge Watch/Warning Graphic, available at hurricanes.gov.

A Hurricane Warning means that hurricane conditions are expected somewhere within the warning area. Preparations to protect life and property should be rushed to completion.

A Hurricane Watch means that hurricane conditions are possible within the watch area. A watch is typically issued 48 hours before the anticipated first occurrence of tropical-storm-force winds, conditions that make outside preparations difficult or dangerous.

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area.

A Tropical Storm Watch means that tropical storm conditions are possible within the watch area, generally within 48 hours.

Interests elsewhere in Cuba, Florida, and the southeastern United States should monitor the progress of Irma.

For storm information specific to your area in the United States, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office. For storm information specific to your area outside the United States, please monitor products issued by your national meteorological service.

DISCUSSION AND 48-HOUR OUTLOOK

At 500 AM EDT, the center of Hurricane Irma was located near latitude 22.5 North, longitude 78.8 West. Irma is moving toward

the west-northwest near 12 mph. A turn toward the northwest is expected by late today, with a turn toward the north-northwest expected tonight or on Sunday. On the forecast track, the center of Irma will move near the north coast of Cuba

today, near the Florida Keys Sunday morning, and then near the southwest coast of Florida Sunday afternoon.

Maximum sustained winds are near 155 mph with higher gusts. Irma is a category 4 hurricane on the Saffir-Simpson Hurricane Wind Scale. Some fluctuations in intensity are likely during the next day or two, but Irma is expected to remain a

powerful hurricane as it approaches Florida.

Hurricane-force winds extend outward up to 70 miles frommthe center and tropical-storm-force winds extend outward up to 195 miles.

The estimated minimum central pressure is 930 mb.

HAZARDS AFFECTING LAND

STORM SURGE: The combination of a dangerous storm surge and themtide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. The water is expected to reach the following HEIGHTS ABOVE GROUND if the peak surge occurs at the time of high tide...

SW Florida from Captiva to Cape Sable...8 to 12 ft Cape Sable to Boca Raton including the Florida Keys...5 to 10 ft Venice to Captiva...5 to 8 ft Suwannee River to Venice including Tampa Bay...3 to 5 ft Boca Raton to Flagler/Volusia County line...2 to 4 ft

The deepest water will occur along the immediate coast in areas of onshore winds, where the surge will be accompanied by large and destructive waves. Surge-related flooding depends on the relative timing of the surge and the tidal cycle, and can vary greatly over short distances. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The combination of a life-threatening storm surge and large breaking waves will raise water levels ABOVE NORMAL TIDE LEVELS by the following amounts within the hurricane warning area near and to the north of the center of Irma. Near the coast, the surge will be accompanied by large and destructive waves.

Ragged Island in the Bahamas...15 to 20 ft Central and Northwestern Bahamas...3 to 6 ft Northern coast of Cuba in the warning area...5 to 10 ft

WIND: Hurricane conditions are still occurring over portions of the central Bahamas, as well as Ragged Island. Hurricane conditions are expected to continue within the hurricane warning area along the north coast of Cuba through today. Hurricane conditions are expected in the northwestern Bahamas today, and in portions of southern and central Florida and the Florida Keys tonight and Sunday.

Hurricane and tropical storm conditions are possible within the watch area in central and north Florida by Sunday.

RAINFALL: Irma is expected to produce the following rain accumulations through Tuesday night:

Northern Cuba...10 to 15 inches, isolated 20 inches. Southern Cuba...5 to 10 inches, isolated 15 inches.

Western Bahamas...3 to 6 inches, isolated 10 inches.

The Florida Keys...10 to 20 inches, isolated 25 inches.

The Florida peninsula and southeast Georgia...8 to 15 inches, isolated 20 inches.

The eastern Florida Panhandle...3 to 6 inches, isolated 8 inches.

Rest of eastern Georgia, western South Carolina, and western North Carolina...4 to 8 inches. Western Georgia, eastern and northern

Alabama, and southern Tennessee...2 to 5 inches.

In all areas this rainfall may cause life-threatening flash floods and, in some areas, mudslides.

TORNADOES: A few tornadoes are possible today and tonight over southern Florida.

SURF: Swells generated by Irma are affecting the southeastern Bahamas, the Turks and Caicos Islands, the northern coast of the Dominican Republic, and the southeast coast of the United States today. These swells are likely to cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 800 AM EDT. Next complete advisory at 1100 AM EDT.

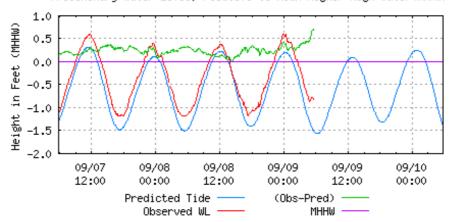
Forecaster Beven

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Key West - Water Level, Key West - Winds, Key West - Barometric, Vaca Key, Florida Bay - Water Level, Vaca Key, Florida Bay - Winds, Vaca Key, Florida Bay - Barometric, Virginia Key, Biscayne Bay - Water Level, Virginia Key, Biscayne Bay - Winds, Virginia Key, Biscayne Bay - Barometric, Lake Worth Pier, Atlantic Ocean - Water Level, Lake Worth Pier, Atlantic Ocean - Winds, Trident Pier, Port Canaveral - Water Level, Trident Pier, Port Canaveral - Water Level, Trident Pier, Port Canaveral - Winds, Naples, Gulf of Mexico - Barometric, Fort Myers, Caloosahatchee River - Water Level, Fort Myers, Caloosahatchee River - Water Level, Fort Myers, Caloosahatchee River - Water Level, St Petersburg, Tampa Bay - Water Level, St Petersburg, Tampa Bay - Winds, Clearwater Beach - Water Level, Clearwater Beach - Winds, Clearwater Beach - Barometric, Cedar Key - Water Level, Cedar Key - Winds, Cedar Key - Barometric

NOAA/NOS/CO-OPS 8724580 Key West, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:48 (EDT). Data relative to MHHW Observed: -0.86 ft. Predicted: -1.53 ft. Residual: 0.67 ft. Historical Maximum Water Level: Oct 24 2005, 3.14 ft. Next High Tide: 09/09/2017 12:53 (EDT), 0.09 ft.

NOAA/NOS/CO-OPS 8724580 Key West, FL

Wind Speed / Gusts / Direction 360 40 35 270 direction (true) speed (knots) 30 25 180 20 15 90 10 5 0 0 09/08 09/09 09/07 09/08 09/09 09/10 12:00 00:00 12:00 00:00 12:00 00:00 speed direction gusts

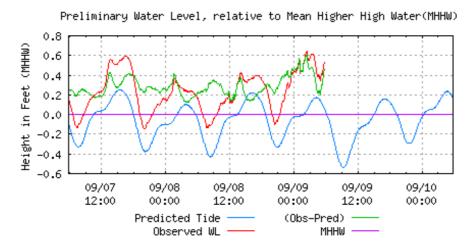
Last Observed Sample: 09/09/2017 05:48 (EDT) Wind Speed: 14 knots Gusts: 26 knots Direction: 60° T

NOAA/NOS/CO-OPS 8724580 Key West, FL

Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 12:00 00:00 00:00 barometric pressure

Last Observed Sample: 09/09/2017 05:48 (EDT)
Barometric Pressure: 1006.0 mb

NOAA/NOS/CO-OPS 8723970 Vaca Key, Florida Bay, FL



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: 0.53 ft. Predicted: 0.07 ft. Residual: 0.46 ft. Historical Maximum Water Level: Oct 24 2005, 5.80 ft. Next High Tide: 09/09/2017 17:00 (EDT), 0.16 ft.

NOAA/NOS/CO-OPS 8723970 Vaca Key, Florida Bay, FL

Wind Speed / Gusts / Direction 360 40 35 270 direction (true) speed (knots) 30 25 180 20 15 90 10 5 0 09/09 09/10 09/08 09/09 12:00 00:00 12:00 00:00 12:00 00:00 speed -- direction gusts -

Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 23 knots Gusts: 31 knots Direction: 41° T

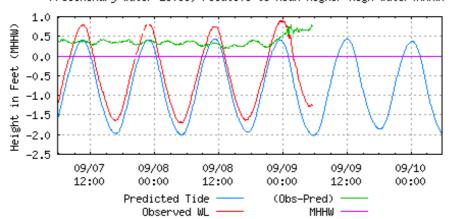
NOAA/NOS/CO-OPS 8723970 Vaca Key, Florida Bay, FL

Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/09 09/08 09/09 09/10 12:00 00:00 12:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 09/09/2017 05:42 (EDT)
Barometric Pressure: 1004.3 mb

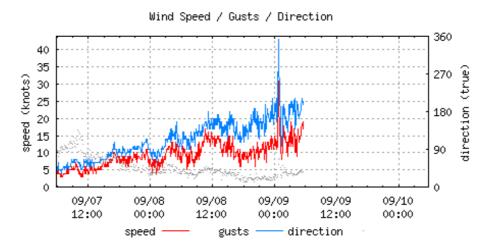
NOAA/NOS/CO-OPS 8723214 Virginia Key, Biscayne Bay, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -1.20 ft. Predicted: -2.03 ft. Residual: 0.83 ft. Historical Maximum Water Level: Oct 24 2005, 2.58 ft. Next High Tide: 09/09/2017 12:01 (EDT), 0.43 ft.

NOAA/NOS/CO-OPS 8723214 Virginia Key, Biscayne Bay, FL



Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 17 knots Gusts: 28 knots Direction: 33° T

NOAA/NOS/CO-OPS 8723214 Virginia Key, Biscayne Bay, FL

Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 00:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/09/2017 05:42 (EDT)
Barometric Pressure: 1005.1 mb

NOAA/NOS/CO-OPS 8722670 Lake Worth Pier, Atlantic Ocean, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.0 Height in Feet (MHHW) 0.5 0.0 -0.5-1.0 -1.5-2.0 -2.5 -3.0 -3.509/07 09/08 09/08 09/09 09/09 09/10 12:00 12:00 00:00 00:00 00:00 12:00 Predicted Tide (Obs-Pred)

Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -1.94 ft. Predicted: -2.73 ft. Residual: 0.79 ft. Historical Maximum Water Level: Oct 28 2012, 2.00 ft. Next High Tide: 09/09/2017 10:54 (EDT), 0.33 ft.

MHHW

Observed WL

NOAA/NOS/CO-OPS 8722670 Lake Worth Pier, Atlantic Ocean, FL

Wind Speed / Gusts / Direction 360 40 35 270 direction (true speed (knots) 30 25 180 20 15 90 10 5 0 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 00:00 12:00 00:00 speed - direction gusts

Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 20 knots Gusts: 24 knots Direction: 79° T

NOAA/NOS/CO-OPS 8721604 Trident Pier, Port Canaveral, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 2.0 Height in Feet (MHHW) 1.0 0.0 -1.0 -2.0 -3.0 -4.0 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 00:00 00:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -2.15 ft. Predicted: -3.28 ft. Residual: 1.13 ft. Historical Maximum Water Level: Sep 26 2004, 4.01 ft. Next High Tide: 09/09/2017 10:39 (EDT), 0.47 ft.

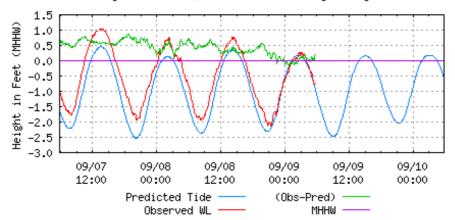
NOAA/NOS/CO-OPS 8721604 Trident Pier, Port Canaveral, FL

Wind Speed / Gusts / Direction 360 40 35 270 direction (true) speed (knots) 30 25 180 20 15 90 10 5 0 09/09 09/09 09/10 12:00 00:00 12:00 12:00 00:00 00:00 speed -- direction gusts

Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 7 knots Gusts: 10 knots Direction: 17° T

NOAA/NOS/CO-OPS 8725110 Naples, Gulf of Mexico, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -0.74 ft. Predicted: -0.95 ft. Residual: 0.21 ft. Historical Maximum Water Level: Dec 21 1972, 3.11 ft. Next High Tide: 09/09/2017 15:05 (EDT), 0.15 ft.

NOAA/NOS/CO-OPS 8725110 Naples, Gulf of Mexico, FL

Wind Speed / Gusts / Direction 360 40 35 270 direction (true) speed (knots) 30 25 180 20 15 90 10 5 0 09/07 09/09 09/10 09/08 12:00 00:00 12:00 00:00 12:00 00:00 speed -- direction gusts

Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 7 knots Gusts: 15 knots Direction: 19° T

NOAA/NOS/CO-OPS 8725110 Naples, Gulf of Mexico, FL

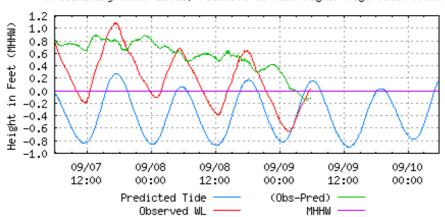
Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 09/09/2017 05:42 (EDT)

Barometric Pressure: 1007.7 mb

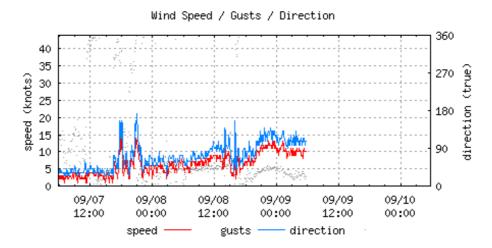
NOAA/NOS/CO-OPS 8725520 Fort Myers, Caloosahatchee River, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: 0.02 ft. Predicted: 0.14 ft. Residual: -0.12 ft. Historical Maximum Water Level: Nov 23 1988, 3.41 ft. Next High Tide: 09/09/2017 06:07 (EDT), 0.16 ft.

NOAA/NOS/CO-OPS 8725520 Fort Myers, Caloosahatchee River, FL



Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 10 knots Gusts: 13 knots Direction: 21° T

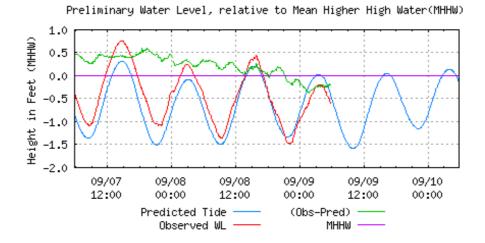
NOAA/NOS/CO-OPS 8725520 Fort Myers, Caloosahatchee River, FL

Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 00:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/09/2017 05:42 (EDT)

Barometric Pressure: 1008.6 mb

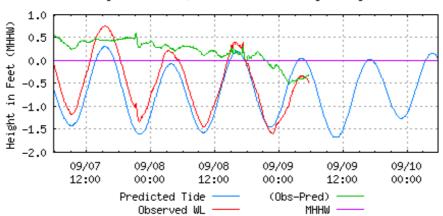
NOAA/NOS/CO-OPS 8726384 Port Manatee, FL



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -0.59 ft. Predicted: -0.39 ft. Residual: -0.20 ft. Historical Maximum Water Level: Sep 6 2004, 2.29 ft. Next High Tide: 09/09/2017 16:18 (EDT), 0.05 ft.

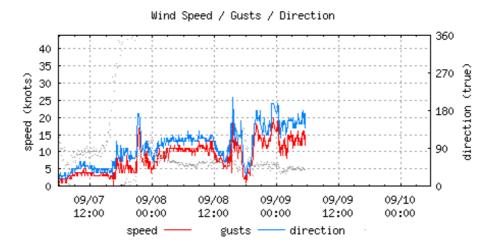
NOAA/NOS/CO-OPS 8726520 St Petersburg, Tampa Bay, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:36 (EDT). Data relative to MHHW Observed: -0.46 ft. Predicted: -0.14 ft. Residual: -0.32 ft. Historical Maximum Water Level: Aug 31 1985, 4.00 ft. Next High Tide: 09/09/2017 17:03 (EDT), 0.02 ft.

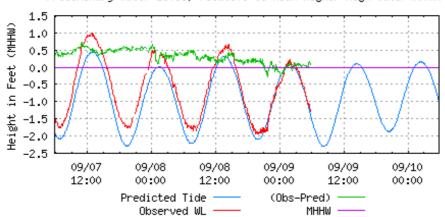
NOAA/NOS/CO-OPS 8726520 St Petersburg, Tampa Bay, FL



Last Observed Sample: 09/09/2017 05:36 (EDT) Wind Speed: 15 knots Gusts: 21 knots Direction: 39° T

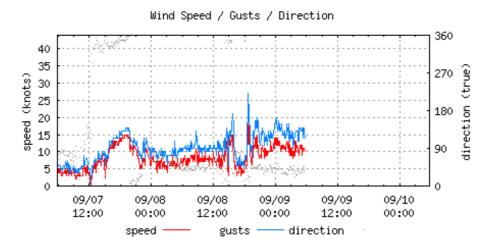
NOAA/NOS/CO-OPS 8726724 Clearwater Beach, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -1.29 ft. Predicted: -1.37 ft. Residual: 0.08 ft. Historical Maximum Water Level: Mar 13 1993, 4.00 ft. Next High Tide: 09/09/2017 14:22 (EDT), 0.10 ft.

NOAA/NOS/CO-OPS 8726724 Clearwater Beach, FL



Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 10 knots Gusts: 14 knots Direction: 40° T

NOAA/NOS/CO-OPS 8726724 Clearwater Beach, FL

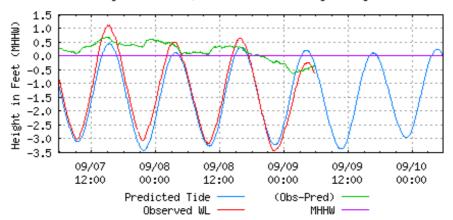
Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 00:00 12:00 00:00 12:00 barometric pressure

Last Observed Sample: 09/09/2017 05:42 (EDT)

Barometric Pressure: 1011.8 mb

NOAA/NOS/CO-OPS 8727520 Cedar Key, FL

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/09/2017 05:42 (EDT). Data relative to MHHW Observed: -0.62 ft. Predicted: -0.27 ft. Residual: -0.35 ft. Historical Maximum Water Level: Oct 7 1996, 5.15 ft. Next High Tide: 09/09/2017 16:45 (EDT), 0.12 ft.

NOAA/NOS/CO-OPS 8727520 Cedar Key, FL

Wind Speed / Gusts / Direction 360 40 35 270 direction (true) speed (knots) 30 25 180 20 15 90 10 5 0 09/07 09/09 09/10 09/08 09/08 09/09 12:00 00:00 12:00 00:00 12:00 00:00 speed -- direction gusts

Last Observed Sample: 09/09/2017 05:42 (EDT) Wind Speed: 13 knots Gusts: 19 knots Direction: 30° T

NOAA/NOS/CO-OPS 8727520 Cedar Key, FL

Barometric Pressure 1016 1014 Pressure (mb) 1012 1010 1008 1006 1004 09/07 09/08 09/08 09/09 09/09 09/10 12:00 00:00 12:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 09/09/2017 05:42 (EDT)

Barometric Pressure: 1012.8 mb

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8724580	Key West, FL	09/09/2017 05:48 (EDT)	-0.86 ft	-1.53 ft	0.67 ft	0.60 ft
8723970	Vaca Key, Florida Bay, FL	09/09/2017 05:42 (EDT)	0.53 ft	0.07 ft	0.46 ft	0.65 ft
8723214	Virginia Key, Biscayne Bay, FL	09/09/2017 05:42 (EDT)	-1.20 ft	-2.03 ft	0.83 ft	0.90 ft
8722670	Lake Worth Pier, Atlantic Ocean, FL	09/09/2017 05:42 (EDT)	-1.94 ft	-2.73 ft	0.79 ft	0.92 ft
8721604	Trident Pier, Port Canaveral, FL	09/09/2017 05:42 (EDT)	-2.15 ft	-3.28 ft	1.13 ft	1.30 ft
8725110	Naples, Gulf of Mexico, FL	09/09/2017 05:42 (EDT)	-0.74 ft	-0.95 ft	0.21 ft	0.76 ft
8725520	Fort Myers, Caloosahatchee River, FL	09/09/2017 05:42 (EDT)	0.02 ft	0.14 ft	-0.12 ft	0.64 ft
8726384	Port Manatee, FL	09/09/2017 05:42 (EDT)	-0.59 ft	-0.39 ft	-0.20 ft	0.46 ft
8726520	St Petersburg, Tampa Bay, FL	09/09/2017 05:36 (EDT)	-0.46 ft	-0.14 ft	-0.32 ft	0.40 ft
8726724	Clearwater Beach, FL	09/09/2017 05:42 (EDT)	-1.29 ft	-1.37 ft	0.08 ft	0.67 ft
8727520	Cedar Key, FL	09/09/2017 05:42 (EDT)	-0.62 ft	-0.27 ft	-0.35 ft	0.65 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce